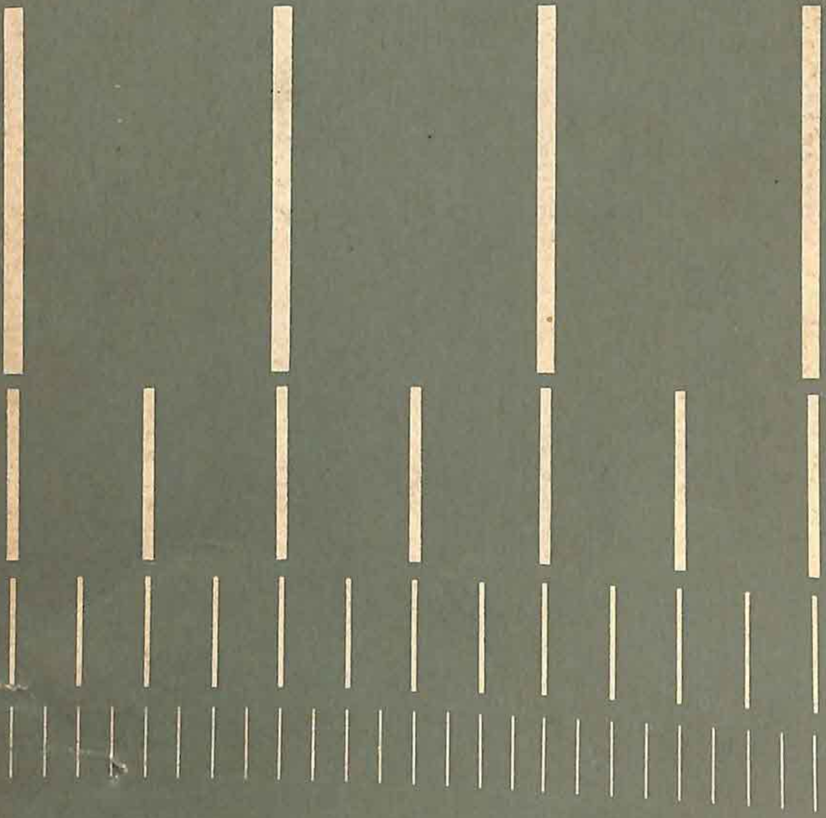
Fundamentals of educational planning 2

The relation of educational plans to economic and social planning

R. Poignant



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The relation of educational plans to economic and social planning

R. Poignant

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Fundamentals of educational planning

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The booklets in this series are written primarily for two groups: those engaged in – or preparing for – educational planning and administration, especially in developing countries; and others, less specialized, such as senior government officials and civic leaders, who seek a more general understanding of educational planning and of how it can be of help to over-all national development. They are devised to be of use either for self study or in formal training programmes.

The modern conception of educational planning has attracted specialists from many disciplines. Each of them tends to see planning rather differently. The purpose of some of the booklets is to help these people explain their particular points of view to one another and to the younger men and women who are being trained to replace them some day. But behind this diversity there is a new and growing unity. Specialists and administrators in developing countries are coming to accept certain basic principles and practices that owe something to the separate disciplines but are yet a unique contribution to knowledge by a body of pioneers who have had to attack together educational problems more urgent and difficult than any the world had ever known. So other booklets in the series represent this common experience, and provide in short compass some of the best available ideas and experience concerning selected aspects of educational planning.

Since readers will vary so widely in their backgrounds, the authors have been given the difficult task of introducing their subjects from the beginning, explaining technical terms that may be commonplace to some but a mystery to others, and yet adhering to scholarly standards and never writing down to their readers, who, except in some particular speciality, are in no sense unsophisticated. This approach has the advantage that it makes the booklets readily intelligible to the general reader.

Although the series, under the general editorship of C. E. Beeby, has been planned on a definite pattern, no attempt has been made to avoid differences, or even contradictions, in the views expressed by the authors. It would be premature, in the Institute's view, to lay down a neat and tidy official doctrine in this new and rapidly evolving field of knowledge and practice. Thus, while the views are the responsibility of the authors, and may not always be shared by Unesco or the Institute, they are believed to warrant attention in the international market-place of ideas. In short, this seems the appropriate moment to make visible a cross-section of the opinions of authorities whose combined experience covers many disciplines and a high proportion of the countries of the world.

Foreword

Raymond Poignant was trained in the Ecole nationale d'administration in Paris, became a *maître des requêtes* of the Conseil d'Etat, and for eight years served also with the Commissariat du Plan as a leading figure in French educational planning, about which he has written extensively. He is at present seconded to the IIEP as a senior staff member and is vice-chairman of its Council of Consultant Fellows. He has made studies, for the Institute, of educational planning in Africa, and is the author of a recent book, *L'enseignement dans les pays du Marché commun*, written under the auspices of the Commission européenne d'études pour le développement de l'enseignement et de la recherche.

This booklet is concerned with methods of integrating plans for education with plans for a country's economic and social development, and so naturally places its emphasis on the financial framework of planning, while still not ignoring the importance of factors other than money. To illustrate this theme, Mr. Poignant draws on the experience of French planning that he knows so intimately, but the general principles and methods he expounds are not confined to one country or even to industrialized countries as a class. Each country must decide for itself how to apply them in its own economic, social, and political setting, but somewhere near the core of planning in any country will be found the problems and the principles set out here.

True to the purpose of this series, the author has not hesitated to define, with admirable clarity, the meaning he gives to each technical term he uses. Not only should this help the student in training, but it should also give comfort and assurance to the large number of administrators, teachers, politicians and others unversed in economics, who are finding these terms and concepts playing an increasing part in their reading and in their work for education.

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Introduction

The economic and social plans now being made in an ever-growing number of countries lay down, on a more or less long-term basis, the possible – or desirable – future trend of national activity, and, to attain their target, have to try to rationalize and discipline the production of goods and services. Whether the targets are to be more or less imperative or indicative, and the methods of achieving them more or less rigid or flexible, will depend on the country concerned and the kind of economic system it has.[1] In spite of the various terminologies however, there is not really any basic difference in the methodology used, and present-day planners now use a language that is very largely international.

In general, educators know very little about these methods and this language – a fact which, for the most part, is quite natural – and are a bit reticent about activities which, to their mind, mainly concern the production of material goods, and hardly affect their own branches of education and culture.

In fact, as we shall see later, the very techniques they use (particularly national accounts), and the mutual dependence of all development factors, force planners to take into consideration all the country's economic, social and cultural activities, so that their forecasts must necessarily make provision for the development of education at all levels.

This booklet is an attempt to explain to teachers, and to the public in general, how education and training are integrated into economic and social plans.

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[1] Certain planning systems allow enterprises varying degrees of latitude in so far as evaluation of growth targets is concerned. The general planning target in such cases then fulfils an indicative or previsional purpose.

Education comes into national planning from two angles.

First, through the choice of the development targets for the different levels and branches of education. Depending on the type of education, this choice will be made mainly for economic reasons (manpower training), or for social ends (the expansion of general education). A clear distinction between the two is extremely difficult, however, as general education is a necessary basis for all vocational training and, inversely, all vocational training includes some general education.

Second, through the allocation of funds for estimated expenditure (building, equipment, operational costs).

The choice of educational targets and the allocation of the necessary funds are closely tied up with each other since the size of the targets will more or less determine the amount of financial aid required and, inversely, in view of the needs of other sectors, the actual amount of the funds available will set a limit to what can be done.

It is this financial aspect of the integration of educational plans into economic plans which we shall consider in Part One of this study. Part Two defines the objectives of educational expansion for inclusion in economic and social development plans, and makes an analysis of development factors and the question of qualitative decision-making and selection.

The financial aspect of integrating educational plans into national economic plans

Targets for educational development and the allocation of the corresponding funds (for investment and operational costs), cannot be decided in the abstract, but must take into consideration the whole range of existing circumstances. In particular, in view of the many unsatisfied needs in all sectors – and even if education is to be given priority – there is no option but to weigh up the amount requested against the needs of other national activities. The very essence of planning consists in deciding which of the various possible alternatives shall be given priority.

The main options in the plan are submitted for governmental decision and are presented in the terms used in national accounts. National accountancy 'is the language in which economic policy objectives can be most conveniently expressed, i.e., in the short term, in the form of budgets, and, for purposes of planning, in the form of medium- or long-term projections which succinctly express all the hypotheses, objectives and decisions of which planning consists'.[1]

A knowledge of the principles and terminology of national accounting is therefore necessary for an understanding of the methodology used in drawing up the main options in a plan.

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1. Claude Gruson, Preface to *Initiation à la comptabilité nationale* by Edmond Malinvaud, Paris, Imprimerie nationale, 1964. [The present study makes frequent reference to this publication.]

Chapter 1

National accounting: basic definitions and principles and their significance for education

National accounts are used to describe 'in outline but omitting nothing' the entire range of economic activities. As a result of the work of international organizations (United Nations, OECD, etc.),[1] the concepts and methods of establishing national accounts have now been largely standardized[2] and now allow valid comparisons to be made between different countries.[3]

1. Productive activities, their evaluation, and the concepts of production, product and national income

Production and national product. In national accounting terms, productive activities consist of that part of human activity resulting in the creation of goods and services used to satisfy individual and community needs. They are varied and complex: agriculture, stock-breeding, ore extraction, industrial operations, building, the transport of people and goods, the distribution of foodstuffs and consumer goods, the supply of medical, legal, educational and cultural services.

Evaluating the output of all these activities is obviously one of the main jobs of the economic information service, and is a vital need for policy-makers.

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[1] For further details see *A Standardized System of National Accounts*, OEEC, 1958.

[2] Nevertheless, important differences in concepts exist between Western and Eastern nations – particularly as regards the inclusion of the various types of services in the national accounts.

[3] For example, where Western nations are concerned, see OECD's statistics bulletins relating to the national accounts.

Economists do not include all human activities among the productive activities listed in the national accounts; for example, housework done by wives is always excluded, since there is no valid way of estimating it.

Productive activities lead to two different types of end product: material goods, and services (medical, educational, police, transport).

Economists have had to distinguish between two categories of services: those actually participating in the production process which are thus 'productive', e.g., transport, and 'others' (generally those carried out by governments, including education and finance).

The national accounts of the Western countries show two different aggregates,[1] *production* and *product*, according to whether they include only the so-called productive services or all services:

Production = material goods + certain productive services
Product = material goods + so-called productive services
+ miscellaneous services

Consequently, the concept of product is wider in scope than that of production, since it includes all remunerated services.

Production or product evaluated by price: income. The output of productive activities can be measured in different units, according to its nature; for example, tons, yards, gallons. For over-all evaluations, a common unit, that is, price, has to be used for all goods and services, although agreement still has to be reached as to which price is to be taken into account. For the consumer it would be normal to use the prevailing market prices for the period under consideration, and the product is then said to be evaluated at 'market prices'.

The economist considers this method too arbitrary, however, since market prices may either be increased through indirect taxation, or decreased through subsidies, the extent varying with the article concerned. The influence of these taxes and subsidies must be eliminated if an accurate assessment of each sector's contribution to the product is to be made. The product is then said to be estimated at 'factor cost'.[2]

The product estimated at factor cost = product evaluated at market price − indirect taxation + subsidies

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[1] In the U.S.S.R. the national accounts include only services considered as productive.

[2] That is, the real cost of the various production factors of goods and services.

Distinction should, however, be made between estimates of product, of production, or of income, at 'ruling prices' – i.e., at the prices definitely obtaining at a particular date – and those at 'fixed prices', i.e., on the assumption that the prices remain stable over the period under study (e.g., utilizing the initial year's prices as a yardstick).

Value added and final production. Generally speaking, before material goods become end products for consumer consumption, they pass through several stages, often in different factories. Consequently, the contribution made by each factory in the manufacturing process will be the difference between the value of the goods and services it has produced and that of the goods it has consumed. This difference is called the 'value added', and the sum of the value added by all producers in a particular country will represent its total production.

Distinction between domestic and national income, net and gross. For a complete definition of the concepts of production, product and income we need to know exactly where the productive activities are situated, for it is not always easy to distinguish between a country's economic activities and those of its neighbour. The three aggregates described above must then be further qualified according to whether they are domestic or national. Domestic production and domestic product include all the goods and services attributable to economic activities situated in the territory of a particular nation, whether carried out by residents or by foreign workers (even if living beyond its borders – frontier workers, for example), or whether the capital used is owned by foreigners. National production and national product, however, include all the goods and services[1] attributable to individuals, whether nationals or foreigners who habitually reside in the territory of the country concerned, and adjusted for incoming and outgoing earnings on capital. Although, legally speaking, the definitions differ, the actual value of the gap separating the two concepts is generally very small.[2]

Then, too, existing material equipment will be subject to wear and tear during the period under review and its value will gradually deteriorate. In national, as in business accounting, this is shown as a debit corresponding to the depreciation of the country's goods. Gross production and gross product do not take into account this reduction in value due to wear and tear. Net production and net product are estimated by subtracting the amount for depreciation from the gross aggregate.

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[1] Including the balance of income from capital abroad and other factors.

[2] Additionally, the term 'monetary product' refers to those goods and services actually paid for. In the developing countries, where auto-consumption of cultivated produce by families holds an important place in the economy, the monetary product is far less than the over-all product. This distinction merits attention when assessing the extent of the population's effective contribution in the financial sphere.

Net production = gross production − depreciation

2. Economic agents

In national accounting the various agents contributing to economic activity are classified as follows: (a) *households*, or all the residents of a country considered in their capacity as members of a household, whether living with their families or alone; (b) *enterprises*, or all economic units engaged in the production of goods or services intended for sale; (c) *administrations*, or bodies whose activity does not take the form of selling goods or services, or of carrying out financial transactions; these include, in addition to state and local government services, various private organizations such as trade unions, associations and private schools; (d) *financial institutions*, or corporate bodies other than the state, specializing in loan and financing operations for their own profit (banks, insurance companies).

3. Breakdown of the national product

The national product may be broken down under three headings, i.e., according to the contribution made to production by the different economic sectors and to the use made of production, and according to the source of the income generated. The present study will consider merely the first two of these headings.

The contribution of the various economic sectors

National production and national product are the results of the productive activities of the various economic sectors. The range of economic activities being very wide, any analysis of production activities will mean breaking them down into sectors, that is, grouping together firms having similar activities.

National accounting is based on a careful nomenclature of the different sectors of economic activity. Table 1 (first column) breaks down the French gross domestic product for 1959 according to the main sectors' contribution to production.

Utilization of production: consumption and investment

Production and product may be broken down according to the productive origin of goods and services and to the use made of them.

Gross domestic production = non-productive consumption +
investment + exports − imports

Non-productive consumption. Consumption is the enjoyment of goods and services as a result of use; it is productive when serving to make other goods and services,[1] as when used by firms. Consumption for the direct satisfaction of individual or community need is called non-productive.

Household consumption means all non-productive consumption by private individuals. Consumption by government and financial institutions, like that of households, is measured by their acquisition of goods and services. The estimated consumption of services by government departments is generally measured in terms of cost, that is, the total sum of salaries paid to civil servants and the current purchases of goods and services.

In a way, government institutions, for example state educational establishments, are considered to consume the services they produce.

Consumption by government services is actually included in the product concept but not in the production concept. Current expenditure on education is one of the factors appearing under the heading 'government consumption' (in the product concept).

Investment or asset formation. Investment includes all increases in the material wealth of a country, and may concern both the formation of fixed capital and the formation of stock.

The over-all formation of fixed capital (buildings, machines) is effected by all economic agents (households, factories, government departments and financial institutions). This essential form of investment makes a distinction between (a) productive investments, which help increase the means of production, and (b) social or general government investments (housing, schools, hospitals). It is essential to make this distinction when analysing the volume of national investments.

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[1] See page 16, 'Value added'.

Stock formation, on the other hand, applies more particularly to industrial enterprises.

Imports and exports. Part of production is exported for consumption by economic agents in foreign countries; inversely, imports satisfy part of domestic consumption. An analysis of the utilization made of production should include a balance showing exports-imports.

Breakdown of the gross domestic product

By way of an example Table 1 illustrates the French gross domestic product (GDP) for 1959, broken down according to the contribution of the different sectors to production, its utilization, and income.

TABLE 1. Distribution of gross domestic product in France in 1959 (in old francs thousand million[a])

Production		Utilization		Income	
Agriculture	24.4	Household consumption	169.8	Wages	120.9
Industry[b]	122.8	Government consumption	38.6	Income from industry and property	82.0
Trade and services[c]	76.0	Gross investment	52.6	Indirect taxation less subsidies	40.6
Households	12.0				
Government and financial institutions	28.4	Exports less imports	6.4	Depreciation	23.9
Miscellaneous	3.8				
GDP	267.4	GDP	267.4	GDP	267.4

SOURCE Malinvaud, op. cit., p. 67

NOTES

[a] To obtain the equivalent amount in new francs, the amount in old francs should be divided by 100

[b] Power, processing industries, building and public works

[c] Transport and telecommunications, trade, services and the professions

Chapter 2

Educational expenditure in the national budget and the function of projections in planning

In the French national accounts, current educational expenditure comes under the heading 'government consumption' (in the product concept), and expenditure for school and university construction and for heavy equipment under the heading, 'gross fixed capital formation'. Let us now consider the volume of educational expenditure appearing in the national accounts, and the use of forecasts in economic planning, and particularly in educational planning.

1. Educational expenditure in national accounts

The volume of educational expenditure and its recent trend in various countries

Tables 2 and 3 show the volume of total educational expenditure and its recent trend in various industrialized and developing countries.

According to these figures, the amounts allocated to education in 1962 varied between 3.26% (Federal Republic of Germany) and 5.57% (United States of America) of GNP in the eight industrialized countries, and in 1964 between 1.4% (Niger) and 5.5% (Congo) in the six developing countries, taking into consideration only expenditure financed out of national resources. Thus, in both developing and industrialized countries educational expenditure accounts for a considerable part of GNP or GDP and, in recent years, this proportion has increased considerably (Belgium, plus 95 per cent from 1950 to 1962; France, plus 60 per cent from 1952 to 1962; Senegal, plus 45 per cent from 1961 to 1964; United States, plus 62 per cent from 1950 to 1962).

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TABLE 2. Trends in educational expenditure in eight industrialized countries[1] (as a percentage of gross national product)

Country	1950* or 1952** expenditure			1962 expenditure			*Per capita* GNP in 1963 or 1964[2]
	Current	Capital	Total	Current	Capital	Total	U.S. $
Belgium[a]	2.35	0.19	2.54*	4.50	0.48	4.98	1 650
France	2.26	0.28	2.54**	3.08	0.73	3.81	1 820
Germany, Federal Republic of	2.16	0.52	2.68**	2.42	0.84	3.26	1 780
Italy	2.42	0.27	2.79*	3.59	0.66	4.25	970
Netherlands	—	—	—	4.07	0.83	4.90	1 390
Union of Soviet Socialist Republics[b]	—	—	—	4.36	0.68	5.04	1 178
United Kingdom	2.63	0.47	3.10**	4.00	0.73	4.73	1 700
United States of America	2.90	0.54	3.44*	4.67	0.90	5.57	3 330

NOTES

a The percentage for capital expenditure is low since no evaluation has been made for private schools

b Percentage based on GNP calculated according to the method used in OECD countries

SOURCES

1. R. Poignant, *L'enseignement dans les pays du Marché commun*
2. OECD

TABLE 3. Trends in educational expenditure in six developing countries[1] (as a percentage of gross national product)[a]

Country	1961			1964			*Per capita* GNP in 1964[2]
	Total expenditure	Of which capital	Total excluding foreign aid	Total expenditure	Of which capital	Total excluding foreign aid	U.S. $
Congo (Brazz.)	7.0	0.17	4.5	8.5	0.28	5.5	138
Ivory Coast[b]	4.1[b]	0.45[b]	3.0[b]	4.3	0.47	3.0	291
Madagascar	5.5	0.27	3.8	7.0	0.84	4.5	120
Niger	1.9	0.28	1.4	2.2	0.29	1.4	77
Nigeria	.	.	2.98[c]	3.93[d]	0.66[d]	3.63[d]	.
Senegal	4.6	0.90	2.6	6.2	0.70	3.8	210

NOTES

a For the five French-speaking countries, the GDP—estimated on the basis of 'market prices'—has been used. For Nigeria the 'factor cost' GDP has been used. This second method of calculation inflates the percentage of GDP allocated to educational expenditure

b 1960 *c* 1958 *d* 1962

SOURCES 1. IIEP studies 2. French Ministry of Co-operation

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Up to now, comparative studies on the financing of education have not made it possible to determine the optimum or maximum amount of educational expenditure corresponding to the different levels of economic development. The above tables even indicate a lack of close correlation between the average standard of living and the level of educational expenditure, which allows us to assume that rapid progress is still possible in the countries which now appear to be lagging behind.

However, to the extent this type of expenditure is necessarily financed out of taxation, it is quite possible that the extremely rapid growth rate of educational expenditure noted in recent years (Tables 2 and 3) cannot be maintained indefinitely. This remark, however, in no way excludes a wide extension of educational expenditure in terms of absolute value in all countries where the economy expands at a sufficient rhythm and where there exists a pronounced political bias in favour of schooling.

Importance of educational capital expenditure and over-all rate of gross fixed capital formation

Fixing the rate and limits of investment. Investment or capital formation is that part of national production which is not consumed, but is accumulated for a wide variety of purposes. The rate of investment or the gross fixed capital formation, that is, the percentage of the national product devoted to investment, measures the effort made by a country to maintain and above all to expand its production machinery as well as the financial aid intended to satisfy social and community needs.

One of the basic choices to be made in drawing up an economic and social plan is the rate at which investment is to be made, since any expansion in the production of material goods during the years that follow will depend mainly on new productive investments. On the other hand, a growing investment rate has the immediate effect of reducing consumption and limiting the possibility of wage increases. For example, if the rate of investment were to increase from 20 to 24 per cent in the course of a five-year plan, the percentage of GNP assigned to household and general government consumption would have to be reduced from 80 to 76 per cent. This does not necessarily mean a reduction in the absolute value of consumption but quite a decided limitation on any hoped-for improvements.

The compilation of a plan therefore involves choosing what is, politically and socially, a very delicate balance between consumption, i.e., the satisfaction of immediate needs, and investment, i.e., the satisfaction of wider but more long-term needs. This short-term competition between capital formation and consumption makes a sudden increase in investment difficult. Experience does in fact show that, although there is a general tendency for the rate of investment to rise, this tendency is fairly slow, as is borne out in the case of France, where the trend in rate of investment as a percentage of gross national product was 18.3 per cent in 1949, 18 in 1956, 18.9 in 1960, 20.2 in 1962, 21.4 in 1964 and 22.2 in 1965.[1]

In the industrialized countries, although the average rate is about 20 per cent of the gross national product, there is considerable variation, as OECD statistics for 1964 show: Belgium, 20.1 per cent; Federal Republic of Germany, 26.4 per cent; France, 20.9 per cent; Italy, 21.1 per cent; Netherlands, 25.1 per cent; United Kingdom, 17.6 per cent; United States of America, 16.8 per cent.[2]

In the developing countries investment rates are usually much lower (8, 10, 12 per cent) and rarely exceed 15 per cent.

Distribution of investments by sector. The distribution of investments, or gross fixed capital formation (GFCF), in France in 1961 is exemplified in Table 4. The GFCF, representing 20.4 per cent of GNP (20.9 in 1964), was split up between: productive investments (industry, agriculture, transport, etc.) about 13 per cent of GNP; housing, 4.95 per cent of GNP; and investment by government, 2.35 per cent of GNP, in which are included investments in schools and universities, that is, 0.62 per cent of GNP.

Table 2 (page 21) shows that, in 1962, in the industrialized countries listed, this proportion varied from 0.73 per cent (United Kingdom) to 0.90 per cent (United States), and Table 3 (page 21) that average rates are considerably lower in the developing countries.[3] Although the proportion of government investment has generally been increasing year by year, it is clear that this trend can develop only within the limits of the over-all investment rate which, as we

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[1] Source: Reports, 1965–66, of the Management Board, Economic and Social Development Fund.

[2] *OECD Observer*, Paris, February 1966.

[3] IIEP studies show that educational investment in the six African countries is to a large extent financed by foreign aid.

TABLE 4. Example of the distribution of investments (GFCF) in France (1961)

Types of investment	At 1961 prices	Percentage of GFCF total	Percentage of HGNP
	(francs thousand million)		
Productive investments			
Agriculture	6.67	10.7	2.15
Power	7.85	12.6	2.55
Industry	15.00	24.1	4.95
Trade	2.40	3.9	0.77
Transport[a]	5.85	9.3	1.95
Total	37.77	60.6	12.37
Housing construction	15.10	24.2	4.95
Government			
General government	0.77	1.2	0.25
Education and research	2.00	3.2	0.62
National health	0.27	0.4	0.09
Urban equipment	1.26	2.0	0.40
Rural equipment	1.13	1.8	0.36
Roads and other transport networks	1.55	2.4	0.50
Total[b]	7.29	11.5	2.35
Miscellaneous	2.23	3.7	0.73
Grand total[b]	62.39	100.0	20.40

NOTES

[a] Excluding roads and other transport networks listed under 'Government'

[b] Discrepancies are because of rounding

SOURCE

French national accounts

have already seen, is not very elastic (with the reservation, for the developing countries, of the special effect of foreign aid).

Competition, the general population increase, and urbanization also make it necessary for the industrialized countries to increase, or at least to maintain, their level of productive investment and housing. Consequently, the expansion of public investments competes with the other investments needed and which are equally urgent and important from the economic, social and political points of view.

In other words, if priority is to be given to public investments, and particularly to education, this can be done either by allowing them a larger share of the fixed volume of investment funds, which implies the difficult task of reducing the budgets of other sectors, or, and this appears to be easier, letting them take priority in the benefits resulting from economic growth. The second method is considered to give better results, but it is still necessary to think in terms of planning and to look ahead at least four or five years.

Investment funds for educational expansion – a particularly vital question. We have already seen that there are certain limits – a fairly rigid over-all investment rate, competition from other priority sectors – to any rapid expansion of investment funds for education. This is very important for the educational planner, since everything will depend on whether he obtains the necessary investment funds. Decisions concerning the amount of capital expenditure, that is, the number of new places, will affect future allocations for current expenditure and cannot be considered individually. Consequently, these two types of expenditure should never be evaluated separately at the planning stage. In this respect, it is quite essential for the planner to work out for each teaching level the ratio between the unit costs of investment (the cost *per capita* for a pupil or student) and the corresponding current unit costs (current cost per student per annum)[1] and also to forecast the trend of this ratio.

2. Projections in economic and educational planning

The drawing up of projections in national accounts forms the basis of economic and social planning and, *ipso facto*, educational planning.

Rate of growth

Economic growth can be measured by trends in the production of goods and services, using the system of national accounts.[2] The first thing to decide when drawing up an economic and social plan is the estimated growth rate. This is not an arbitrary choice but is determined by such factors as: the manpower available, the extent to which productive investment can be increased and the growth in labour productivity, and the sort of target that is being aimed at.

1. In France, current unit costs work out – according to the various teaching levels – at between 0.20 and 0.25 of the investment costs.
2. The use of a system of accounts in planning is necessary in both the developing and the more advanced countries, for, without it, the planner is working in the dark. A certain amount of equipment and personnel are needed to set up national accounts and their projections, but experience has shown that, in countries where the economic system is still fairly simple, a small working group will suffice, provided it is well trained.

We have seen that the rate of growth[1] depends largely on the rate of investment, which cannot be stretched indefinitely because of the competition between consumption and investment. The rate finally decided on – perhaps 4, 5 or 6 per cent – will be the result of a compromise between the various factors concerned.

National accounting projections

It is not enough to estimate the over-all rate of growth; a practical analysis must also be made of each sector to examine the growth rate in view of the targets fixed and to verify that the proposals are coherent concerning the physical balance (between production on the one hand and consumption and investment on the other), the financial balance (between savings and investments, between government revenue and expenditure), and the balance between manpower supply and demand.

The accounts projected for each year of the plan, or, as a minimum, for the final year, will make it possible to check the coherence of the forecasts for the production, consumption, investment and external trade planned. In other words, projections will show the amount of capital expenditure for education (under 'government investments') and of recurrent expenditure (under 'government consumption') for the whole period of the plan.

Obviously, no planned economy will regard these forecasts as inviolable, but they do constitute a general framework whose main items cannot be changed without upsetting the balance as a whole. Consequently, the educational planner must try to see that the growth rate for educational expenditure is as high as possible in the projections, that is, he must get priority for education when the main planning objectives are being decided.

The choice between the main alternatives

This is always a delicate question since it means that equally deserving aims and interests will be competing for the limited possibilities offered by the growth rate. However much a government may wish to give priority to education, this must not mean that the other sectors are retarded or prevented from expanding.

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[1] Percentage annual increase in the production of goods and services as compared with the previous year.

The national account projections, which are based on the different hypotheses for the growth rate, make it possible for the whole complex of options to be clearly presented. The projections for each growth rate show possible alternatives, and it is up to the government and parliament to make the choice: (a) the amount of investment in relation to consumption; (b) for investment, the respective proportions going to productive investment, housing and government investments; (c) for productive investments, the proportions going to the various branches of activity; and (d) for government investments, the allocations to the different services (education, health, town planning), with corresponding estimates of the recurrent expenditure involved and the means of financing it.

It would be helpful, when making a choice, if there were a set of objective criteria valid for all countries, but in fact the motivation behind these choices may be economic, social or political. If we take the social sector, under which education falls, is it possible to draw up a set of rules covering the best allocation of resources?

Without anticipating information that will be obtainable from the ever-increasing amount of research being done by economists on the subject, the choices the various countries have to make will depend on the priorities of the moment, and even when countries are at the same level of development, these priorities will vary from one country to the next according to the progress made in equipping the various sectors, and the country's idea of what its future is to be.

Table 5 is given as an example of how the main alternatives were drawn up for the fourth (1962–65) and the fifth (1966–70) plans adopted in France.

The first column in Table 5 shows the percentage breakdown of GDP in 1961, the last year of the third plan (1958–61), and the second and third columns the over-all growth index for GDP and for each of the various headings.

In the fourth plan (1962–65), with an over-all growth rate of 24 per cent, priority was given to productive investments (+ 28 per cent), and particularly to government investments (+ 50 per cent), and, within these, special priority for educational investments, which experienced a 90 per cent growth rate between 1961 and 1965.

On the other hand, the growth rates for private consumption (+ 22 per cent) and government civil and military consumption (+ 22 per cent) were below the over-all rate.

In the fifth plan (1966–70), with an over-all growth rate of 27 to

TABLE 5. Expenditure of gross domestic product (GDP) in France at the end of the third, fourth and fifth plans

Use of resources	1961 (end of third plan)[1]	1965) (end of fourth plan Anticipated increase over 1961[1]	1970 (end of fifth plan) Anticipated increase over 1952[2]
	%	%	%
Private consumption	64.6	22	24–25
Government consumption	13.5	22	36–37
Civil			38
Military			34
Investments (GFCF)	20.4		
Production		28	27–28
Housing		25	34–35
Government[a]		50[b]	54–55[c]
	98.5	30	
Exports	+15.5		
Imports	—14.0		
Total	100.0		
Over-all growth index		24	27–28
GDP in francs thousand million, at 1961 prices	309	384	490

NOTES

[a] Education, sports facilities, health, urban and rural amenities, cultural amenities, transport, etc.

[b] Education: + 90 per cent

[c] Education: + 55 per cent

SOURCES

1. Annex to the Act of 4 August 1962, approving the fourth plan
2. Draft legislation on the main objectives of the fifth plan

28 per cent, priorities were altered, productive investments being limited to the general growth rate of 27 to 28 per cent.

Government investments continue to expand faster than GDP (54 to 55 per cent), but education no longer enjoys the special priority granted under the fourth plan and receives the same treatment as other government services. On the other hand, in the fifth plan, the growth in consumption, that is in recurrent expenditure, by civil and military government departments is more rapid than for GDP, contrary to the previous plan. Current expenditure for the civil departments is to expand by 38 per cent, and within this percentage, because of the considerable expansion in school and university construction in the fourth plan, recurrent expenditure for education will increase even more quickly.

TABLE 6. Trend of educational expenditure in France, 1961–70 (estimate)

Year	GDP (in francs thousand million)	Educational expenditure		
		Current	Capital	Total
		%	%	%
1952[a]	144	2.26	0.28	2.54
1955[b]	170	2.42	0.45	2.87
1961	309[c]	2.94	0.62	3.56
1965	384[c]	3.53	0.83	4.36
1970	490[c]	4.70	1.05 to 1.10	5.70 to 5.80

NOTES
a End of first plan *b* Middle of second plan (1953–57) *c* At 1960 prices

On the basis of these proposals, the trend for educational expenditure in France between 1961 and 1970 (estimate) is as shown in Table 6.

In short, this provides an example of priority being increased, from one plan to the next, for 'community' investments and corresponding recurrent expenditure, and also to the financing of educational expansion.

When the government receives the proposals submitted to it by the economic and social planning services it does not proceed, in the abstract, to arbitrate specifically on the amount of the appropriations to be made, but, more positively, on the degree to which the needs of the different sectors can actually be satisfied. These financial decisions are closely bound up with the analysis of the needs to be satisfied and the content of the objectives for which expenditure is requested.

This leads us to examine the way in which the educational objectives proposed for inclusion in the plan are established.

OF EDUCATION Bengal

Defining the objectives of educational expansion for inclusion in economic and social development plans

Development factors, decision-making, selection

A list of everything the educational authorities will require (premises, equipment, teaching staff), for inclusion in the financial tables of the national account projections, is drawn up on the basis of a forecast of the numbers to be enrolled at all levels and in all branches of education. Factors affecting the quality of education, which may cause investment and operational costs to rise or fall (generally rise), must also be taken into account; for example, a reduction in the size of classes or in the pupil/teacher ratio; improvements in teaching methods (use of audio-visual aids); improvements in the syllabus and in construction standards for schools and universities,[1] and replacement of old materials.

Population movements, frequently due to urbanization trends, also affect needs, but this question will not be considered here.

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[1] A list of all the installations required in school buildings (class-rooms for general education, for special subjects, laboratories, sports facilities, teaching equipment, restaurants, residence halls).

Chapter 1

Types of factors which influence enrolment

An analysis of the demographic, social, economic and even political factors influencing school and university enrolment must be made when forecasting trends.

Although these all depend on each other to some extent, they are shown here separately.

1. Demographic trends

Demographic fluctuations will obviously be the basis of all forecasts of the number of enrolments; this presents no difficulties for over-all estimates when statistics for births and deaths are reliable (which is not yet the case for all developing countries), but, at the regional administrative level, population movements may seriously complicate the task of forecasting, and the means required to make this analysis will have to be set up.

In most countries, the factor in question has been influenced by recent events: the demographic upheavals due to the war, the considerable rise in the birth-rate in the Western industrialized countries in the post-war years, the high rate of expansion in the number of children of school age in the developing countries and so on.

The weight of this factor in fixing possible enrolment targets varies considerably from one country to another, since the birth-rate ranges from 15 per thousand (in some industrialized countries) to 35 per thousand (in many of the developing countries). This basic condition will influence, in one way or another, the entire educational policy of a country.

2. Attitudes of the different social groups[1]

The attitudes of various social groups towards further schooling, *i.e.*, non-compulsory secondary and higher education, and the changes in these attitudes should also be taken into account.

If a particular kind or level of education is not compulsory, or is subject to a *numerus clausus* which might limit families' demand, then the planner who is trying to take into account needs as expressed, must try to foresee trends in the demand for education. The question of access to general secondary schools and universities is a concrete example.

In this respect, the various survey reports published in a number of countries on the social and regional aspects of secondary and higher education show that there is much disparity in attitudes.

Differences according to social and occupational groups. Almost all the children of top-level staff (management, engineers) and of members of the professional classes go to secondary school, and a very considerable proportion of them to the university; for manual workers and agricultural labourers the number is far lower (perhaps a tenth or a twentieth, or even less); for medium-level staff (small shopkeepers, tradesmen, office workers) the number varies between these extremes.

Differences according to district. Differences in the over-all enrolment rates from one district to another are also very wide, but these may be due not so much to differences in supply (that is, whether there are fewer or more secondary schools or universities in the area concerned) as to differences in demand on the part of the inhabitants, mainly for reasons of a socio-occupational nature, although a variation in supply may itself have some effect, and the attitude of the different social and occupational groups is not strictly the same in all the districts of the same country.

The increasingly large number of sociological studies on this question show that the number of children going to secondary school (which determines the chances of admission to a university) depends on a whole range of factors, such as the parents' occupation (or social origin), the family income, the size of the family, its religion, and the distance of place of residence from the school.

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[1] See R. Poignant, *L'enseignement dans les pays du Marché commun.* Paris, IPN, 1965.

In reality, the dominant factor (which merges to some extent with that of income) is the child's social origin.

Trends in the attitudes of social groups. In general, and particularly in industrialized countries, the behaviour pattern of the various social and occupational groups is not rigid, but is undergoing constant and rapid change. The behaviour of the 'average' social categories is now coming into line with that of the higher, management categories, and enrolment rates for the children of manual workers now tend to reach those of the middle occupational categories in the previous decade.

The tendency observed in France, between 1953 and 1962, of enrolment in secondary schools according to social groups provides a typical example of this trend. This is shown in the diagram on the opposite page.

This trend is largely due to economic growth and the rise in the standard of living of all social classes, bringing with it a general awareness of the advantages to be gained from further education. In the very long term, it indicates a tendency towards equalization of the behaviour of the different social groups.

The planner's problem is to estimate the extent to which this trend will affect the number of enrolments during the period of the plan.[1] Even when standards of living and rates of economic growth are about the same, the increase in the demand for education is not necessarily identical. Much will depend on the country concerned. Those with a conservative outlook will be much more likely to keep up the traditional family habits of the different social groups.[2] In addition, action taken by the government might have quite a strong influence on the way demand develops.

3. Government educational policy

The government's educational policy is very closely tied in with this change in the demand for education on the part of the different social

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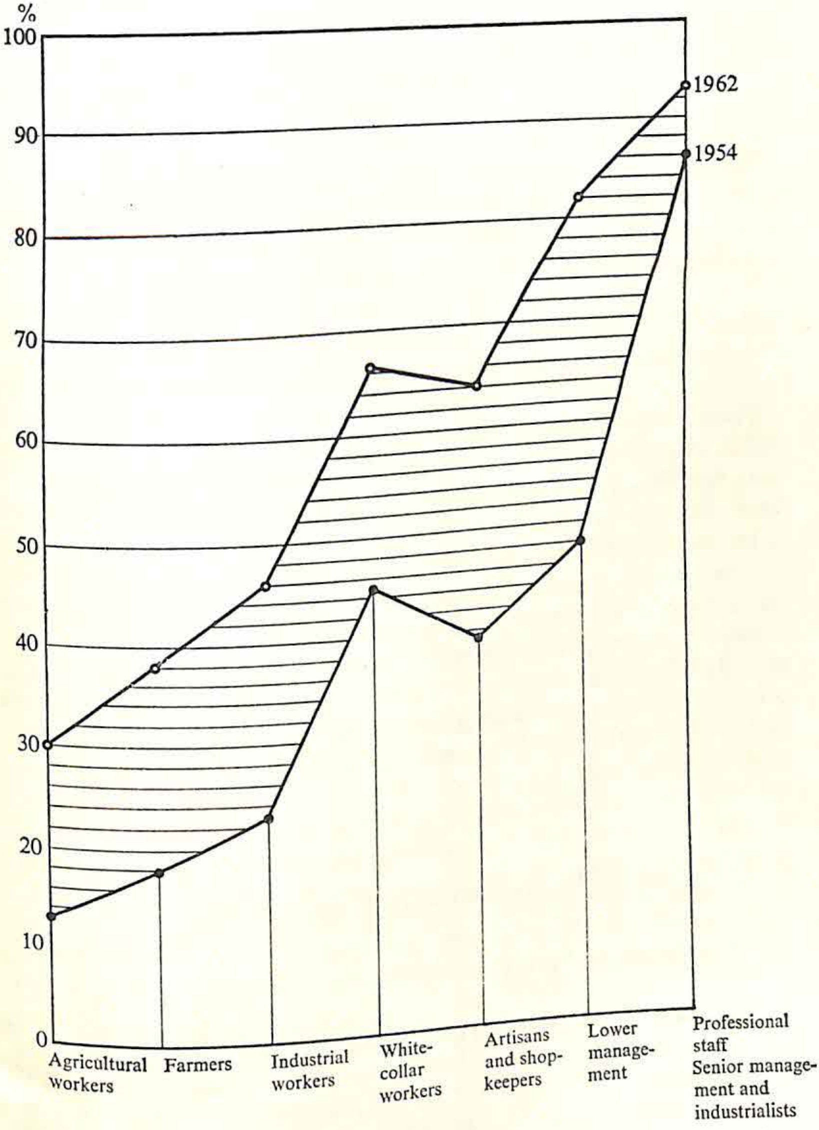
[1] In a given country, during a period of regular economic expansion, the extrapolation of trends generally provides satisfactory results.

[2] This applies particularly to some developing countries where the social groups are still clearly divided. Only studies on educational sociology can enlighten the planner on this question.

Trend in the rate of admission to grade 1 of secondary school in France, by social origin, between 1954 and 1962*



* Ratio between the number of admissions, by social origin, and the number of children of corresponding age

SOURCE Studies by Alain Girard, in *Population*, Paris, INED groups. Action may take the form of: encouraging voluntary further education by providing financial aid (free education, increased numbers of scholarships); overcoming geographical difficulties (school transport, boarding schools); facilitating the transfer from primary to secondary schools (providing transition classes); extending admission to the university to those having completed training in technical secondary schools.

The educational system may be further modified by extending compulsory education; introducing lower, general secondary schooling (which would increase the demand for upper secondary and university education); and extending the period of higher education.

In so far as the government attempts to make further education more easily accessible to all social classes (the democratization of education), its educational policy becomes an important part of social policy.

The results of such a policy on enrolment trends can either be calculated very accurately (in a structural reform), or be estimated. In any case, this type of policy must be very closely bound up with the decisions referred to in Part One concerning the financial allocations to be made. Ambitious aims are in fact possible only if governments are prepared to pay the price and if the economic situation permits. Inversely, it is possible to imagine a type of policy which – for financial or any other reasons, for example, if there were too many graduates of a certain type – instead of encouraging, would tend to act as a brake (simply by ensuring that selection for admission to any particular form of further education becomes or remains more restricted).

4. Educational expansion and manpower needs[1]

The interdependence of economic and educational development

The expected rate of economic growth is the fourth but not the least important factor to be considered when drawing up an educational plan.

Economic expansion and the resulting rise in family living standards create new material and psychological conditions which favour the expansion of further education. To some extent, the changing demand for education might be said to be simply a reflection of economic progress. There is no need to return to this question, which has already been discussed in a previous section.

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[1] This question will be referred to only very generally, as IIEP will be publishing studies dealing specifically with the subject.

Technical progress alters the occupational distribution of the active population – there is a continuous decrease in the primary sector (agriculture, forestry, fisheries); expansion, then stabilization and a relative decrease, in the secondary sector (industry); and continued expansion in the tertiary sector (services) – and requires, in particular, an ever-increasing proportion of skilled workers and of middle- and higher-level personnel in all the main sectors of the economy.

The future changes which must be made in vocational and technical schools, and to some extent in higher education, are obviously closely related to the changes required in the skills of the active population. In fact, to a large extent – subject to the transfer of manpower from one sector to another, and promotion within the firms – the new type of skilled and highly skilled personnel can be found only among the ranks of the newly qualified. Looked at from this angle, educational expenditure becomes a kind of investment (the formation of human capital) whose high profitability is stressed by economists.

These remarks show how economic growth and educational expansion are mutually dependent on each other. The former creates the financial and psychological conditions which are favourable to the latter, and, inversely, educational expansion, especially at the secondary and higher levels of technical and vocational training, is a necessary condition of economic progress. (General education is, of course, the basis of any type of specialized training, and improvements in general education are themselves of direct economic value.)

The need to train the workers, executives and experts required to develop the economy means that the second aspect of this factor should be considered when fixing the targets for the educational plan.

The satisfaction of manpower needs

The need for medium- and long-term forecasting. When deciding the relative values to be attributed in the plan to the various types and levels of vocational and technical training, a clear and accurate picture of the manpower needs in the various occupational categories and at every level of skill is essential.

In view of the considerable time required to set up new schools financed by the plan and to complete the training of the young people attending them, the forecast of manpower needs should be made at least five to ten or twelve years, depending on the case concerned, before the first year of the plan is put into operation.

The difficulty of such forecasts. Forecasting manpower needs is never very easy, even under a planned economy. Forecasts are based on medium-term and, for the reasons given above, long-term estimates of economic growth. Consequently, the validity of forecasts will depend on the likelihood of the future four- or five-year plan being carried out, and also on longer-term extrapolations (ten or twelve years). The uncertainties involved in the technique of forecasting manpower needs are therefore multiplied by the coefficient of chance inherent in long-term economic forecasts. Such hazards are considerable in the large industrialized countries; for reasons which cannot be gone into here, they are even more serious in the developing countries.

Forecasting requires a minimum amount of basic information concerning fields which frequently have not yet been properly explored. For example: a thorough knowledge of the occupational structure of the active population, by branches of activity and levels of education; the way this structure has developed in the past; a knowledge of the correlations existing between the various types of employment and the best training for them; and the way these correlations have changed in the past, depending on the various factors concerned. The factor which is likely to change the job/skill equation most directly and rapidly, at least as regards general education, is actually the expansion of further education (that is, at secondary level) and the growing supplies of people with such education. However, on this particular point it is up to the planners to decide, in view of the country's situation,[1] whether they should stick to stable correlations and draw inferences from them for the development targets for general education.

The drawing up of good forecasts of manpower needs for use in planning educational expansion would require a tremendous amount of preparatory work in all these fields. This cannot be improvised, and teams of experts must be set up either in the government department directly concerned or in specialized institutes.

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[1] Bearing in mind the special financial problems of the developing countries, a policy of this kind is particularly suitable for them. This aspect of governmental educational policy has been discussed above.

Different forecasting methods. Once the essential basic information has been obtained, any of the following methods may be used to make the forecast: estimates of short- and medium-term needs through standardized surveys in enterprises or services (these surveys show the existing deficits and the new needs likely to arise during the course of the plan); estimates of long-term needs based on the extrapolation of trends in the various branches, on the use of models adapted to the economic activity concerned, or on an analysis of past trends in industrially advanced countries.

Wherever possible, short- and long-term estimates should be made concurrently, and verified by using different methods.

The present economic systems in the developing countries, and the uncertainty regarding their development in the distant future, do not allow us simply to use the methods already employed in the industrialized countries. In these countries, surveys which show current deficits and short-term needs are generally all that is required to produce a valid plan for training.

These estimated manpower needs are subsequently converted into training plans, and it will be mainly – but not entirely – the responsibility of training establishments to put them into effect.

Finally, by analysing all the factors described above (demographic, social, economic and political), forecasts can be made showing the expansion required at the various levels of education (primary, secondary, higher) and in the various special categories. A knowledge of statistics will be required to calculate the number of enrolments (estimating drop-out and repeat rates, forecasting the number of enrolments), all of which is part of the work of educational planning.

The enrolment forecasts made each year are used to estimate all the additional facilities (building, teachers, equipment) that are to be made available to educational authorities during the plan period. When these estimates and the amount of expenditure are being worked out, all the qualitative improvements that can be made to the educational system (see introduction to Part Two) should be included. In general, such improvements will result in an increase in unit costs (operational costs per annum per pupil, investment cost per place and per class).

The draft plan thus arrived at is then considered, along with the needs of all the other sectors, to see what financial possibilities exist. This is done at the co-ordinating stage of economic planning, mainly by the use of national account projections (as indicated in Part One).

Chapter 2

Effect of financial decisions on the quantitative target in the educational plan and on the qualitative means to attain it

Once an accurate estimate of the financial needs of all the sectors has been arrived at through the studies, surveys, and consultations that are a feature of the preparation of a plan,[1] the final decision, which is a political one, must be taken by the government, and, in the final resort, by parliament.

Experience has shown that the total amount requested by the various services which prepare the plan always exceeds the country's financial possibilities, so that, when the government decides on the allocations, the requests submitted by a particular service may have to be cut.

Deciding on the allocations to be made is a difficult operation from the point of view of both planning techniques and policy.

We have seen that, so far as the techniques of planning are concerned, no obvious objective criteria yet exist for deciding priorities. For example, all the research on the optimum rate for educational expansion has been based on an estimation of the most desirable trend for the skills of the active population; that is, efforts are made to base the educational pyramid on an estimated structure of skill categories for the active population. In the more advanced industrialized countries, however, the expansion of general education is already based largely on human, social and democratic considerations, and not simply on economic needs. Consequently, in these countries,

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1. At the initial stages, when the first preparations are made, the draft plan adopted by the government includes financial hypotheses for all sectors, which thus fix the financial limits for educational expansion from the start. But as these hypotheses are based on sector studies that must inevitably be incomplete, they are re-examined when the work has reached a more detailed stage.

if the 'ideal' is based entirely on the economy's needs, then other factors, which should be considered but which unfortunately are difficult to quantify objectively, are left out.

On the other hand, in the developing countries, a realistic economic policy means that the expansion of education must be considered in more strictly economic terms, at least during a transition period, depending on the speed of the country's development.[1] In particular, the expansion of universities, technical schools, and even general secondary schools should be closely in line with the estimated manpower needs. This type of educational policy may well arouse strong opposition if, for example, the demand for secondary education is much higher than the needs of the economy warrant; for this reason, some developing countries are not able to adhere strictly to such a policy, or even to consider its adoption.

The detailed estimates of skilled personnel requirements already referred to should help governments to appreciate their real needs – which should be neither underestimated nor overestimated – and to work out the training policy best suited to their particular economic situation.

Incidentally, in other spheres of community investment, 'standards' should be used as far as possible to estimate requirements, although deciding the level of these standards in the light of the country's economic development is a rather subjective operation.[2]

In view of the responsibilities of the government to those who elected them, it is obviously difficult deliberately to sacrifice certain sectors in order to give full satisfaction to others. However desirable it may be to allow education all the investments it needs, can an industrialized country do this if as a result there is nothing, or almost nothing, left for the expansion of its motor road system, or for the modernization of its hospitals or of urban and rural amenities? Government decisions, even if based on a choice of priorities, must inevitably contain some degree of compromise.

Ideally, the priority given to education would make possible both

[1] In fact, the priority given provisionally to the economic aspect of educational expansion, as many socialist countries in eastern Europe have done, is possibly the best way of obtaining in a relatively short time – twenty to thirty years – a wide educational expansion based on purely human and cultural motives.

[2] For example, the expansion of different kinds of institution providing health and welfare services in relation to the population (number of hospital beds, of dispensaries, medical visits, and so on).

the quantitative expansion and the improvements in quality referred to above.[1] These include improvements in the pupil/teacher ratio; higher qualification (and salary) levels for teaching staff; better-quality school equipment and material; improved teaching methods and content. Such a policy is certainly possible today in some very economically advanced countries, but in the majority, for various economic and demographic reasons, the priority which must certainly be given to education will not necessarily mean that the educational planner will receive everything he asks for.

Therefore, financial restrictions will mean that, in an educational plan, an order of priority has to be established for quantitative and qualitative targets, taken together or individually.

1. Fixing quantitative priorities

The targets set at an earlier stage of the plan will now have to be reviewed and a decision taken as to the levels and branches of education which are to be given priority. There are no universal rules for making this choice, and decisions will depend on the particular circumstances of the country concerned.

Demographic expansion must be given absolute priority in a country where all the children go to school, at least within the limits of compulsory schooling. Where compulsory schooling is not yet general, the demographic factor is only one among many to be taken into consideration.

Family demand (e.g., for secondary education) may or may not be met in full, depending on whether social considerations or purely economic motives must be taken into account.

Basic reforms (longer compulsory schooling, educational reforms) may be applied immediately, postponed temporarily, or spread over a long period, according to the particular case.

Training plans for skilled and highly skilled personnel should in principle be kept intact since they are an actual condition of economic growth; various ways exist of meeting these requirements however (see below).

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[1] Although improvements in the quality of education tend to increase immediate costs they give very good medium-term results, since they reduce the number of failures and repeats.

2. Fixing qualitative priorities

Instead of making quantitative cuts when deciding on priorities, the planner may try to achieve his objectives under different qualitative conditions which enable costs to be cut. This is a further type of choice to be made in educational planning. Within the financial limits set, should the aim be to expand compulsory education to the maximum or to restrict its expansion to maintain, or even improve, the quality of education?

Choice of standards. This problem occurs far too frequently in the developing countries at primary-school level, and may sometimes occur in some of the industrialized countries at other levels. Its solution should be based on common sense. For example, it would be absurd to make primary education general if its quality would no longer allow pupils to tackle secondary schooling later. Consequently, planners should always try to ensure that educational standards are kept above a certain minimum. It would be just as absurd to deprive part of the children of the benefits of education so as to guarantee a very high standard for the rest. This must inevitably lead to the adoption of mid-way solutions, corresponding to the level of the country's development, so far as the standard (which conditions wage levels, and, consequently, the cost of education) required of its teachers and the pupil/teacher ratio are concerned. Obviously, for some types of education, and particularly at university level, no concessions can be made concerning quality, since every country should have a top-level *élite* at its disposal.

Use of new teaching methods. In many developing countries, the rapid demographic expansion and the scarcity of human and financial resources have so restricted the choice between quantity and quality that the whole question of teaching methods may have to be reviewed; a widespread and reasonably adequate education must be attempted but costing less than traditional education. This brings up the whole question of using mass media for education (radio, television, films, records) at all levels. Up to now, the use of audio-visual aids in schools has improved the quality of teaching, but has added to the cost. In many countries the experiments now being made concern the use of radio and television during ordinary school hours; they tend to improve quality and may in the future lower educational costs through a reduction in the cost of teaching staff. If these experiments prove satisfactory from the teaching and cost points of view,[1] the educational planner may be able to find new solutions and, within the financial limits imposed, provide a good standard of education more cheaply and consequently for a larger number of people.

Other methods in vocational and technical training. Full-time schooling appears to be the most satisfactory method for vocational and technical training at secondary and university level, particularly as it also guarantees a good general culture. But it is also the most expensive, and even though economists necessarily give priority to manpower training the question of cost has to be considered here as elsewhere. Because of this, and because financial resources are limited, full-time schools should not be regarded as the only solution. There are many cheaper methods[2] of attaining targets, such as schools and firms sharing worker and employee training in a ratio to be fixed, accelerated vocational training, and part-time education (evening courses, correspondence courses) for young people and adults already in employment.

Let us finally note, concerning this aspect of educational planning, that the choice of qualitative priorities should be based on both teaching and financial considerations. If this choice is to be really valid, from the teaching point of view, it will require very active co-operation between the ministry of education and teachers in compiling the plan, and also a new slant to research on teaching methods. From the financial point of view, the choice should be based on preliminary studies of the real cost of the education provided by the various alternative systems. Consequently, the analysis of the costs and, if possible,[3] of the 'returns' corresponding to the variations in cost, is an important aspect of educational planning.

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1. IIEP has studied the results of experiments carried out in seventeen countries, and has published three volumes of case studies and a final report.
2. Widely employed in eastern Europe, particularly in the U.S.S.R.
3. Such studies are extremely difficult, there being nothing more difficult to assess than the output of an educational system.

Conclusion

1. The privileged position that education should have in the national plan

We have dealt at some length with all the factors contributing, in varying degrees according to the country concerned, to the development of education, and also with the question of priorities and financial restrictions that are inevitable when education is considered in the actual context of economic and social development.

For the economic planning experts, education has a double aspect: in the short term (the period of a four- or five-year plan), the economy must try to provide education with the means it requires to expand, not only because it trains future workers, but because of the other factors we have referred to. Economic expansion will not benefit during this short period from these supplementary efforts made on behalf of education; on the contrary, they will delay the entry of young men and women into the active population, and may even mean a reduction in the amount of productive investment.

In the medium or long term, as a result of earlier educational expansion plans, the active population will derive the benefit of an expanding flow of better-educated and trained young people. This will gradually transform the intellectual and vocational structure of the population. The higher skills of the active population will make it possible for production techniques to be constantly improved and for the steady progress of economic expansion.

From this angle, there is no doubt that educational development is an investment. The advantages of this type of investment are not restricted to the sort economists try to calculate but are felt in all spheres, whether social, domestic, cultural or democratic.

This investment should be given a privileged position in national development plans, which not only aim at raising production and the standard of living but concern every aspect of human society. However, the financial priority which must be given to education does not in any way exclude – indeed, because of the large sums expended on education, it requires – the making of every effort to rationalize the use of such funds and to obtain the best possible returns.

2. Implementing the educational plan and adapting appropriate ministry services

The task of preparing the plan should not be limited to the compilation of reports which have only a forecast value and which engage the responsibility of no one. These reports are intended to result in governmental and parliamentary decisions; the eventual planning act adopted by parliament, however, is not an end but only a stage. The plan has then to be put into effect in all its details.

The implementing of an educational plan

An entire range of new and exceedingly important tasks is involved here, most of which fall to the lot of the competent service (central administration and district and local departments) in the ministry of education. Of course, the plan should never be absolutely rigid; on the contrary, it should be continuously adaptable in the light of the experience gained during the implementation.

Finance. The financing of the plan takes the form of allocations, generally in the annual budget, but which may cover several years. It is during the vote on the various annual sums to be allocated to the plan that any alterations can be introduced.

Geographical location. The siting of educational establishments is one of the most delicate operations involved in carrying out the plan. There are several 'musts' which have to be borne in mind when drawing up a map showing the position of schools (primary and secondary) and universities.[1] These include: progressively reducing the disparity in regional and local enrolment rates by offering the population facilities which are as homogeneous as possible; providing the various regions with the trained 'human capital' that corresponds to their industrial needs, through the suitable location of vocational, technical and scientific schools; and inversely, through the expansion of vocational and technical training in emigration areas, preparing the departure for industrialized areas of a labour force that has already been trained.

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[1] In certain countries, India for example, model school sectors, with highly qualified teaching staffs, have been established. These are to serve as examples and to be gradually extended.

The last two requirements make the task of compiling an educational map difficult. The problem is not simply one of geographical location but of accurately drawing up the curricula and syllabuses of vocational and technical schools.[1]

Construction of school buildings and the recruitment of teachers. The construction of school and university buildings and the execution of plans for the recruitment of teachers would appear to be familiar tasks for educational authorities concerned, but if they are to be done with the maximum speed and efficiency on the new scale of requirements, traditional methods will have to undergo constant revision.

Pupil and student guidance. Educational planning implies the expansion of the various specialized branches of education in line with the estimated trends of the occupational structure and skills of the active population. This means estimating the proportions of the age groups of those concerned who will go to the various levels and kinds of education.

This does not mean that guidance is to be coercive. Experience has often shown that when new departments are set up in existing schools or when new schools are created, and the students and their families are kept properly informed (by the organization of vocational guidance and information services), this is sufficient to orient students in the direction sought. If this does not prove sufficient, however, it is up to the government through its incentives policy (particularly financial, by influencing wage levels and giving priority when granting scholarships) to get the sort of orientation it wants.

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1. That is, the details of the various subjects to be offered. Decisions can be taken only after a local investigation has been made and after consultation with the trade and professional organizations concerned.

Adaptation of ministry of education services

In many countries, the headquarters of the ministry of education still devotes the bulk of its efforts to current administration and supervision. With the plan, the preparation and implementation involved and the necessary contacts with economic and social planning services will mean a considerable reorganization, of the following sort:

1. Administrative and supervisory duties should be decentralized and carried out by district and local government departments, and even by the schools themselves.
2. All the different jobs we have referred to connected with preparing, carrying out and supervising the plan will require new staffs with considerable research facilities.
3. Similarly, the division in the ministry concerned with actual teaching matters (curricula, methods, examinations), far from having its activities reduced, should, on the contrary, be properly strengthened in view of the additional importance acquired by its functions.
4. Finally, it should be borne in mind that the interdependence of the educational plan and the national economic and social plan will mean that the planning department of the ministry of education must work in close liaison with the ministry for planning – a liaison which preferably should constitute a specialized unit in itself.[1]

The teachers' role in preparing and implementing the plan

We have seen that it is not possible to set up an educational plan, from the point of view of fixing targets or of deciding the amount to be spent, independently of the general growth prospects of the economy and of the economic planning services. This does not mean, however, that educational planning should become the exclusive right of economists, financiers, administrators and sociologists.

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[1] As in the Union of Soviet Socialist Republics (Department of Education and Culture of Gosplan / State Committee for Economic Planning) and in France (Commission de l'équipement scolaire et universitaire du Commissariat du plan), countries which have set up within their economic planning department a special unit responsible for studying every aspect of educational development which goes beyond the terms of reference of the ministry of education; for example, finance and manpower. Two important studies which give a detailed account of the organization of educational planning in the two countries have been undertaken by IIEP under the direction of Raymond Poignant and will be published in 1967.

If we agree that the basis for organizing the work involved in planning is the principle adopted in France at the time the Planning Commissariat was set up, namely, 'that all those who will have to apply the plan [or, at least, their representatives] should participate in its preparation', then the school and university authorities and the teachers' unions will naturally have their place on the commissions and committees where the decisions are taken.

This place is all the more important since, as has been seen, questions of quality and quantity, and the economic and teaching aspects of educational expansion, are always closely dovetailed into each other and cannot be dealt with separately.

But the role of the teaching profession here should not stop at the drawing up and executing of the educational plan. The choice between the main alternatives in an economic and social plan must be based on considerations immediately relevant to each country and on the image each society has of its future. As the guardians and creators of the moral and spiritual values of their country, who better than the teachers should be able to help define what this image is to be?

IIEP book list

The following books, published by Unesco:IIEP, are obtainable from the Institute or from Unesco and its national distributors throughout the world:

Educational cost analysis in action: case studies for planners (1972. Three volumes)
Educational development in Africa (1969. Three volumes, containing eleven African research monographs)
Educational planning: a bibliography (1964)
Educational planning: a directory of training and research institutions (1968)
Educational planning in the USSR (1968)
Financing educational systems (series of monographs: full list available on request)
Fundamentals of educational planning (series of monographs: full list at front of this volume)
Manpower aspects of educational planning (1968)
Methodologies of educational planning for developing countries by J.D. Chesswas (1968)
Monographies africaines (five titles, in French only: list available on request)
New educational media in action: case studies for planners (1967. Three volumes)
The new media: memo to educational planners by W. Schramm, P.H. Coombs, F. Kahnert, J. Lyle (1967. A report including analytical conclusions based on the above three volumes of case studies)
Planning the development of universities - I (1971) *II* (1973. Further volumes to appear)
Planning the location of schools (series of monographs: full list available on request)
Population growth and costs of education in developing countries by Ta Ngoc Châu (1972)
Qualitative aspects of educational planning (1969)
Research for educational planning: notes on emergent needs by William J. Platt (1970)
Systems approach to teacher training and curriculum development: the case of developing countries by Taher A. Razik (1972)

The following books, produced in but not published by the Institute, are obtainable through normal bookselling channels:

Education in industrialized countries by R. Poignant
Published by N.V. Martinus Nijhoff, The Hague, 1973
Managing educational costs by Philip H. Coombs and Jacques Hallak
Published by Oxford University Press, New York, London and Toronto, 1972
Quantitative methods of educational planning by Héctor Correa
Published by International Textbook Co., Scranton, Pa., 1969
The world educational crisis: a systems analysis by Philip H. Coombs
Published by Oxford University Press, New York, London and Toronto, 1968

Suggestions for further reading

EDEY, H. C.; PEACOCK, A. T. *National income and social accounting*, revised edition. London, Hutchinson University Library, 1959.

FRANCE. COMMISSARIAT DU PLAN. *Rapport sur les principales options du Vᵉ plan*. Paris, Imprimerie des journaux officiels, 1965.

HARBISON, F.; MYERS, C. A. *Education, manpower and economic growth*. New York, McGraw-Hill, 1964.

KNIGHT, J. B. *The costing and financing of educational development in Tanzania*. Paris, Unesco/IIEP, 1966.

POIGNANT, R. *L'enseignement dans les pays du Marché commun*. Paris, IPN, 1965.

VAIZEY, J. *The economics of education*. London, Faber & Faber, 1962.

S.C.E.R.T., W. Bengal
25/3, B. C. Road
Library
Calcutta

The International Institute for Educational Planning

The International Institute for Educational Planning (IIEP) was established by Unesco in 1963 to serve as an international centre for advanced training and research in the field of educational planning. Its basic financing is provided by Unesco, and its physical facilities by the Government of France. It also receives supplemental support from private and governmental sources.

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